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ZERTIFIKAT

DIN EN ISO 9001



PÜG Prüf- und Überwachungsgesellschaft mbH bescheinigt hiermit, dass das Unternehmen





Zertifikatsinhaber:

Ziegler GmbH Schrobenhausener Straße 56, 86554 Pöttmes

Zertifizierte Standorte: + Firmenstandorte (siehe Anlage) *)

ein Qualitätsmanagementsystem entsprechend der DIN EN ISO 9001:2015 eingeführt hat und dieses wirksam anwendet.

Der Nachweis wurde im Rahmen des Zertifizierungs-Audits erbracht.

*) Die Anlage ist Bestandteil der Urkunde und umfasst eine Seite.

Dieses Zertifikat ist gültig vom: 04.08.2021 bis: 03.08.2024

Zertifikat-Registrier-Nr.:

K24066-20210802-Q-de

Dakks Deutsche Akkreditierungsstelle D-ZM-16007-01-00



Gäufelden, 02.08.2021

der Zertifizierung

PÜG Prüf- und Überwachungsgesellschaft mbH | Hämmerlestraße 14 + 16 | 71126 Gäufelden Telefon (0 70 32) 78 08-0 | Fax (0 70 32) 78 08-50 | info@pueg.de | www.pueg.de

Anlage zur Urkunde Seite 2 von 2 vom 02.08.2021

Zertifikat-Registrier-Nr.: K24066-20210802-Q-de

PÜG Prüf- und Überwachungsgesellschaft mbH Hämmerlestraße 14 + 16, 71126 Gäufelden Tel. 07032 7808-0, Fax. 07032 7808-50

Das Zertifikat ist gültig für die nachstehend genannten Standorte.



Firmenbezeichnung	<u>Straße</u> <u>PLZ und Ort</u>	Bereiche
Ziegler GmbH	Schrobenhausener Straße 56, 86554 Pöttmes	Strategische Geschäftseinheit Harvesting, Transport, Cultivation, Maschinenbau und Automobiltechnik mit Entwicklung/Konstruktion, Einkau Disposition, Logistik und Vertrieb
Ziegler Automobiltechnik spol. S.r.o.	Dr. Klementa 1186 330 23 Nýrany (CZ)	Strategische Geschäftseinheit Harvesting, Transport, Cultivation, Maschinenbau und Automobiltechnik mit Entwicklung/Konstruktion, Einkau Disposition, Herstellung, Logistik und Vertrieb
Zieglera Masinbüve SIA	Spalu iela 3 5404 Daugavpils (LV)	Strategische Geschäftseinheit Harvesting, Transport, Cultivation, Maschinenbau und Automobiltechnik mit Entwicklung/Konstruktion, Einkau Disposition, Herstellung, Logistik und Vertrieb

Leitung der Zertifizierungsstelle

* PÜG DIN EN ISO 9001 PlayIngtomagement

PÜG Prüf- und Überwachungsgesellschaft mbH | Hämmerlestraße 14 + 16 | 71126 Gäufelden Telefon (0 70 32) 78 08-0 | Fax (0 70 32) 78 08-50 | info@pueg.de | www.pueg.de

Original

EG-Konformitätserklärung

Entspricht der EG-Richtlinie 2006/42/EG

EC Declaration of conformity

According to the directive of the EC 2006/42/EC

Wir, ZIEGLER GmbH We, Schrobenhausener Straße 56 D-86554 Pöttmes

Erklären in alleiniger Verantwortung, dass das Produkt Declare under our own responsibility that the product

Maschine:	ZIEGLER rapeseed kit
Modell:	Rapskit drive below
Тур:	New Holland Varifeed, Case 3050
ab Seriennummer /	
from serial number:	4200000

auf das sich diese Erklärung bezieht, den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-Richtlinie 2006/42/EG entspricht.

Zur sachgemäßen Umsetzung der in den EG-Richtlinien genannten Sicherheits- und Gesundheitsanforderungen wurden insbesondere folgende Normen und technische Spezifikationen herangezogen:

to which this declaration refer are in conformity with the applicable basic safety and health requirements of EC Directive 2006/42/EC.

In order to fulfil the safety and health requirements contained in the EC Directives, the following standards and technical specifications have been taken into account:

EN ISO 12100	Sicherheit von Maschinen
EN ISO 4254-7	Landmaschinen Sicherheit Teil 7

Bevollmächtigt zur Zusammenstellung der technischen Unterlagen ist der unterzeichnende Geschäftsführer.

The company officer authorized for the compilation of the technical documentation is the Managing Director (signatory).

Dieses Zertifikat belegt, dass auch einzelne Anbauteile mit den grundlegenden Sicherheitsvorgaben (gemäß der EU-Richtlinie 2006/42/EG) rechtskonform sind und bei der Montage an Mähdreschern und an anderen Geräten mit dem CE-Zeichen gekennzeichnet werden dürfen.

This certificate gives the right to declare on the conformity of partly completed equipment with the essential safety stated in EU Directive 2006/42/EC in assembly with combine harvesters and to mark equipment with CE mark.

ZEGL Zieglar G

Dipl. BW (FH) M. Ziegler (Geschäftsführer)

Pöttmes, den 01.01.2021_____ Ort und Datum; Place and date

To guarantee the handover of the operating instructions to the end customer and the reseller.

Date of delivery _____

Please a completed copy of this form to ZIEGLER GmbH, Schrobenhausener Straße 56, D-86554 Pöttmes (Germany)

Address aut	horized stockist / importer
Company	
Address	
Town / postcode	Company stamp / date
c.	ustomer address
Name	
Address	
Address	
Post code	
instructions upon delivery of the machine / set. I undertak and carefully before use of the machine / set. Moreover, I with their contents. I will also include these documents with obligation to pass on the instructions with the machine. I a only after ZIEGLER GmbH have received a completed an	specified below. I also confirm that I was presented with the operating e to read these operating and installation instructions comprehensively undertake to commission and operate the machine / set in accordance h the machine / set in the event of its resale and inform the buyer of the m aware that a guarantee claim can be made against ZIEGLER GmbH id signed version of this declaration. Furthermore, I am aware that the ipt of the machine / set, regardless of the date on which this declaration
Machine / set type	Machine / set no.
Place / date	Customer signature
	ade upon provision of a <u>completed and signed</u> over declaration.



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1. FOREWORD

Dear customer,

In purchasing our rapseed side knives, you have decided for a high-quality ZIEGLER product.

We would like to thank you for your confidence in buying this product.

Please read these operating instructions carefully and before use to ensure the best possible use of the rapseed side knives.

This manual has been structured to provide comprehensive information about the required activities following the technical sequence. It provides comprehensive information concerning the maintenance, the safe operation of the machine, safe working methods, special precautionary measures, and the additional accessories available. Compliance with the specifications contained in this manual is vital to ensure operational safety, reliability and value-conservation of the disc harrows.

Please note:

These operating instructions represent a constituent part of the rapseed side knives and must be stored in immediate proximity to it.

Only ever operate the machine after full training and in compliance with the specifications of this manual.

It is absolutely necessary that you adhere to the safety information.

Please comply with all the applicable accident prevention regulations and all generally recognized safety and medical-safety regulations and the applicable highway code.

All the information, diagrams and technical specifications made in these operating instructions correspond to the latest state of technology at the point of publication.

We reserve the right to make alterations to the design at any time and without the need to specify reasons. Should these operating instructions become completely or partially unusable, we will provide you with a replacement. Please state the number on the next page.

We wish the best of success with your rapseed side knives.

Ziegler GmbH



2. INTRODUCTION

These operating instructions contain the basic information which requires compliance during the operation and maintenance of your machine. All personnel must read these operating instructions before commissioning and using the machine. They are to be held accessible to personnel at all times.

Do not just comply with the general safety instructions listed under this main safety heading, but also the special safety instructions inserted under the other main points.

2.1 General description and intended use

The rapeseed side knife separates the interlocking branches of the rapeseed plant. To perform this function, it must be fastened vertically as an additional unit on the side walls of the combine harvester header.

2.2 Support

Both Ziegler GmbH and all authorized suppliers attempt to ensure that customers are satisfied with their purchased rapeseed side knife.

Should you experience any problems, our qualified service department will be only too pleased to provide assistance.

Your authorized supplier can also contact us to receive further assistance.

2.3 Serial number of the rapeseed side knife

Please state the machine type, serial number and date of construction when making any complaints or ordering spare parts. The data is provided on the type plate. (see example Fig. 2)



In order to keep the ordering procedure as simple as possible, we recommend that you enter the machine data in the table provided below, so that you have access to these at all times.

Type:	
Serial no:	
Year of	
construction:	

Please note:

Only original spare parts meet the safety requirements specified by ZIEGLER GmbH!

The use of spare parts, accessories and additional devices not produced, tested or authorized by ZIEGLER will result in the loss of liability for the resulting damage.



2.4 Validity

These operating instructions are valid for the disc harrows DISC MASTER PRO

2.5 Contact partner

Ziegler GmbH Schrobenhausener Straße 56 D-86554 Pöttmes (Germany)

Tel: +49 (0) 8253/9997-0 (switchboard) Fax: +49 (0) 8253/9997-47 E-Mail: <u>vertrieb@ziegler-cultivation.com</u> Internet: <u>www.ziegler-cultivation.com</u>



3. SAFETY MEASURES



Caution:

The operating instructions concerned with your safety are marked with this symbol. Please observe all the information and relay all the safety instructions to other operators.

3.1 Intended use

The rapeseed side knife may only be used for the rapeseed harvest. Any other form of use exceeding these specifications is classed as non-intended use. The manufacturer is not liable for any resulting damage. The resulting risk is borne solely by the user.

Intended use includes compliance with the operating and maintenance conditions specified by the manufacturer.

The rapeseed side knife may only be used, maintained and repaired by those persons who are familiar with the device and have been informed of the dangers which it presents.

Comply with the relevant accident prevention regulations and all other generally-recognized safety,related, occupational health and traffic law regulations.

The fitting of additional non-original devices and any or all modifications to the machine require the express permission from the manufacturer, as they may contribute to the deterioration of the quality of the machine and safety defects.

Unauthorized modifications to the machine void the manufacturer's liability for any damage caused.

3.2 General safety rules for the prevention of accidents

General

- > Check the unit for traffic and operational safety before commissioning the device.
- In addition to the information contained in these operating instructions, comply with all the generally-valid safety and accident-prevention regulations.
- Warning signs on the device provide important information required for its danger-free operation. Compliance with them serves your safety. The signs must be kept in a perfect, legible condition!
- Nobody is permitted to enter the working area of the rapeseed side knife and the combine harvester cutting unit!
- When leaving the driver's cab and clearing faults, switch off the rapeseed side knife and combine harvester cutting unit; switch off the engine of the combine harvester and remove the ignition key. Secure the combine harvester against rolling away (parking brake).
- > The knife protection may only be removed directly before mowing in the field!
- Safe operation of the combine harvester and its cutting unit requires compliance with the relevant operating instructions!
- > Comply with all traffic regulations when using public highways.
- Please ensure that you familiarize yourself with all the units and actuating elements and their function before commencing work. It is too late to do so whilst working!

Hydraulic system

- When connecting the hydraulic hoses to the hydraulic system of the combine harvester, ensure that the hydraulics are drepressurized on both the combine harvester and the device side.
- Subject the hydraulic hose lines to regular checks and replace following damage or ageing. All replacement hose lines must satisfy the technical requirements of the device manufacturer.
- Liquids emerging under pressure (hydraulic oil) can penetrate the skin and cause serious injuries which are not visible from outside. Consult a hospital immediately after injuries. Danger of infection!
- Ensure that the cutting unit has been lowered, the system has been depressurized and switch off the motor and remove the ignition key before performing any work on the hydraulic system!



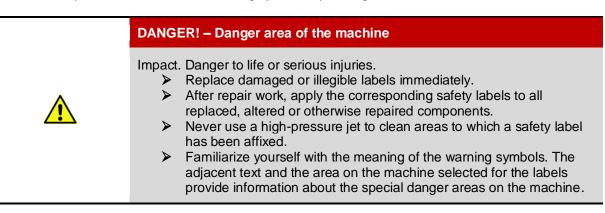
- Always secure a raised device or unit with suitable mechanical support elements before commencing maintenance and repair work. Switch off the motor and remove the ignition key!
- Test all nuts and bolts regularly for their security and tighten if necessary. First check after c. 5 operating hours.
- Spare parts must correspond with the device manufacturer's technical specifications! This is only ensured with original spare parts.
- > Only use prescribed operating resources. Dispose of replaced operating resources correctly.
- > Always wear gloves when working on the mowing knives!

3.4 Noise information

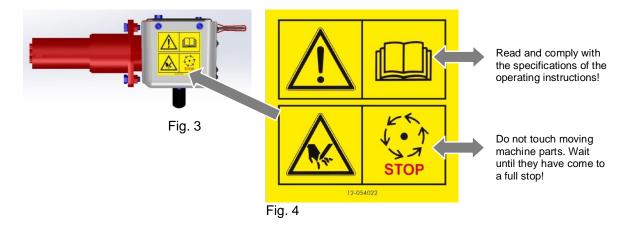
The continuous sound pressure level is lower than 70 dB (A).

3.5 Safety labels with warning symbols

Although the rapeseed side knife is fitted with all the necessary safety installations, the requirements of function retention mean that it is impossible to secure all the danger areas on the machine completely. For this reason, warning images have been applied on the machine to inform of the residual dangers. Please ensure that these warning symbols are maintained in a faultless state. This serves your own personal safety. You can order extra warning symbols by stating their order number.



The positioning and meaning of the warning symbols used are briefly explained below.



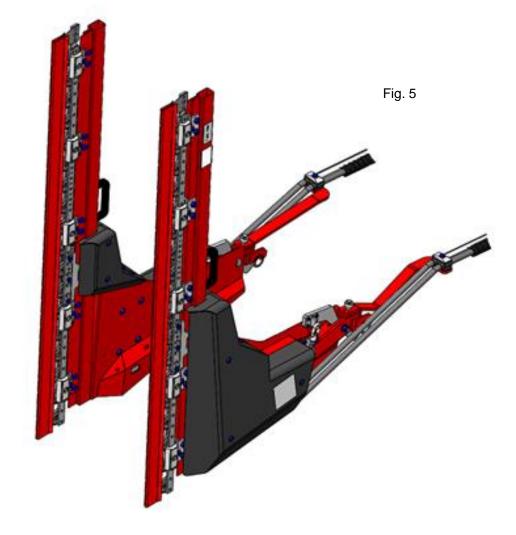


4. FITTING

4.1 General

The rapeseed side knife is supplied in such a way that it complies with the safety regulations of EC Directive 2006/42/EC (machinery).

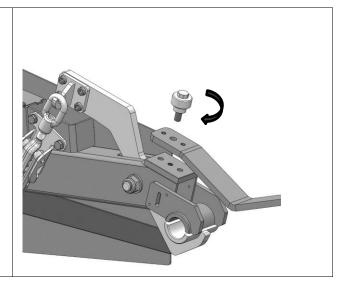
The rapeseed side knife must be installed on the combine harvester cutting unit by a specialist workshop working in compliance with the specifications of the above-mentioned standard.



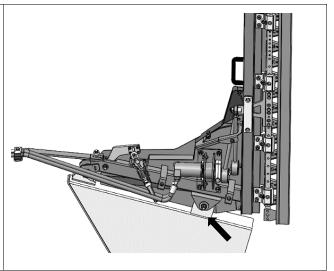


5. INITIAL ASSEMBLY OF THE RAPESEED SIDE KNIFE WITH MOUNTING SUPPORT TO THE LEFT AND RIGHT

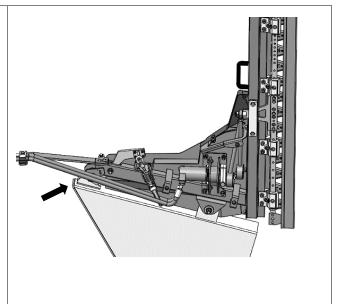
Place the hose bracket on the rear side of the mounting support and fasten with the knurled screw (no.: 20-070226).



Insert the pre-fitted rapeseed side knife with the mounting support in the hook of the tip of the cutting unit using the fore bearing.



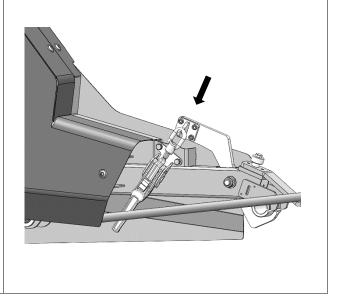
Insert the cut-through pipe at the rear on the mounting support on the bearing pins of the tip of the cutting unit.

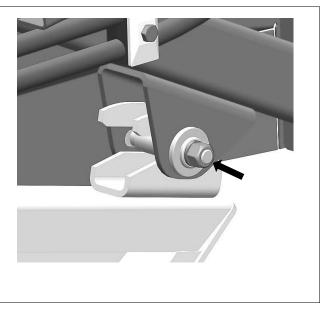




Press the clamping lever downwards and tighten with the eccentric clasp. If necessary, set the eccentric clasp so that the mounting support is fastened on the bearing pins.

- Push the bolt of the fore bearing forwards to its fullest extent.
- > Tighten the nut on the fore bearing.





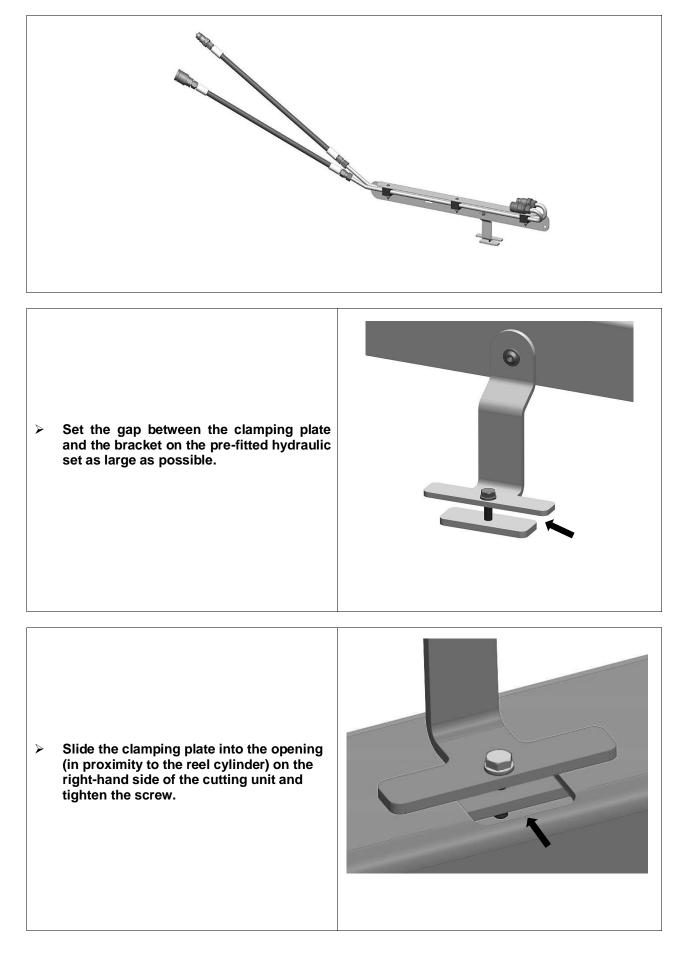
Connect both hydraulic hoses with the metal hydraulic lines on the cutting unit side.



Perform the initial assembly of the rapeseed side knife with mounting support equally on the left and right-hand sides.



Hydraulic set right



INITIAL ASSEMBLY OF THE RAPESEED SIDE KNIFE

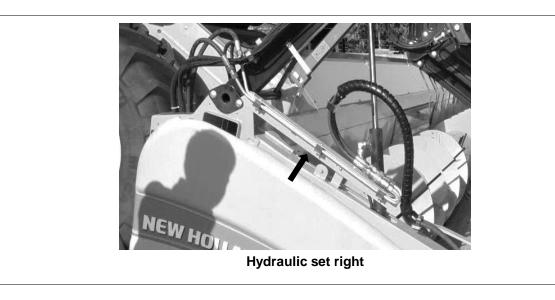


Fasten the pre-assembled hydraulic set to the rear strap of the right-hand side of the cutting unit using a clamping screw with hexagon socket, a washer and a selflocking nut.



0

Connect both hydraulic hoses from the hydraulic set with the cutting unit.



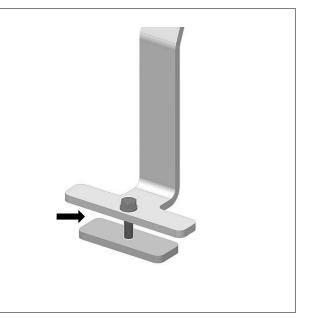
The knife with bracket and the hydraulic sets are dismantled in the reverse order.



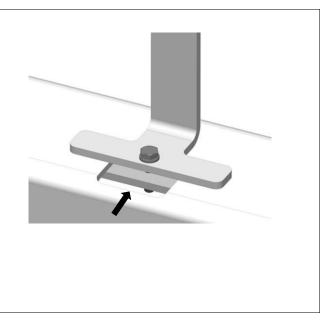
Hydraulic set left



Set the gap between the clamping plate and the bracket on the pre-fitted hydraulic set as large as possible.



Slide the clamping plate into the opening (in proximity to the reel cylinder) on the left-hand side of the cutting unit and tighten the screw.



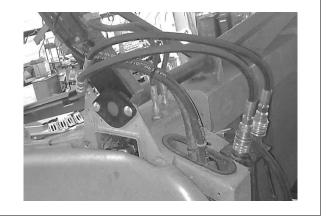
INITIAL ASSEMBLY OF THE RAPESEED SIDE KNIFE

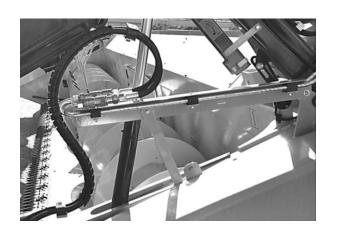


Attach pre-assembled hydraulic set to the rear strap of the left-hand side of the cutting unit using a clamping screw with hex socket bolt, a washer and a selflocking nut.



Connect both hydraulic hoses from the hydraulic set with the cutting unit.





Hydraulic set mounted on the left-hand side of the cutting unit.

The rapeseed side knife with mounting support and hydraulic sets is dismantled in the reverse order



6. CONNECTING THE DRIVES



Please note:

The connection of the rapeseed side knife must be performed by an authorized specialist workshop!

5.1 Hydraulic drive

Туре	Pressure	Oil flow	Length:
RT 135-HY	50- 180 bar	10- 12 l/min	1.35m

The hydraulic motors used can be back-loaded, i.e. two rapeseed side knives can be connected in series. The specified oil flow must not be exceeded; if necessary, install a flow control valve.

Use hydraulic hoses in accordance with DIN-EN 853 (2SN; DN 10) or DIN-EN 857 (2SC; DN 10), operating pressure 200 bar. If oil is supplied from the on-board system, consult the manufacturer of the combine harvester or cutting unit.

Safety regulations specify that the rapeseed side knife and other auxiliary units are to be shut down when the combine harvester header is switched off. This is achieved when

- > The rapeseed side knife is supplied with oil from a hydraulic unit in the header.
- When the oil supply is interrupted via deactivation of a solenoid valve (pos.8) whilst the header is being switched off. The solenoid valve must be switched
- Via a push button switch (pos. 3) which is pressed by the switch lever (pos. 4)
- Or via an electric rocker switch, which switches off the entire cutting unit from the driver's cab



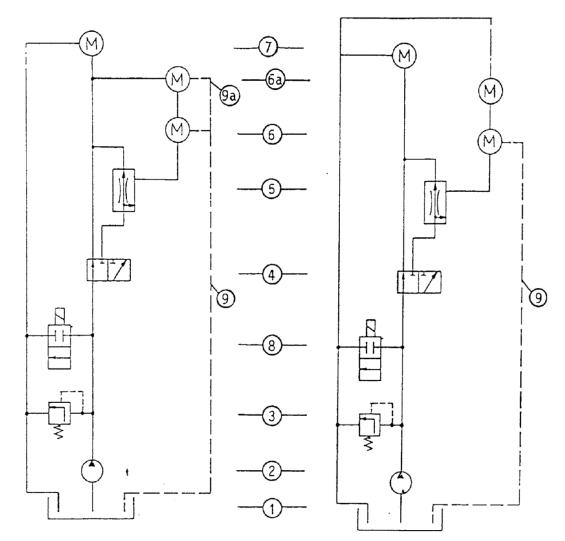


Fig. 6

Return oil is guided to a consumer (Pos.7

Return oil returns to tank depressurized

- 1 Oil reservoir
- 2 Pump
- 3 Pressure limit valve (180 bar max.)
- 4 Three-way valve for switching off the rapeseed side knife
- 5 Flow control valve
- 6, 6a Rapeseed side knife motor
- 7 Hydraulic reel drive, valve block in combine harvester etc.
- 8 Electromagnetic valve
- 9, 9a Leakage oil line: required if 50 bar is to be exceeded in the line to the rapeseed side knife motor; This is the case if

 \Rightarrow The return oil flows into another consumer (pos. 7) such as a reel drive, hydraulic reel adjustment, etc., which can generate back pressure.

 \Rightarrow A second rapeseed side knife motor (pos. 6a) is connected downstream.



7. OPERATION

The rapeseed side knives are designed for continuous operation and can cut the rape seed without any problem at a driving speed of 5 - 6 km/h. Reduce the driving speed if the rapeseed is horizontal.

8. MAINTENANCE AND CARE

11.1 Lubrication

The knife and knife guides must be adequately lubricated before each use. You can use commercially available temperature-resistant oils and greases for this purpose.

11.2 Knife guides

The knife guides should be adjusted without play and without jamming! A gap of up to 3 mm between the knife tips does not negatively affect the cutting quality.

11.3 Knife change

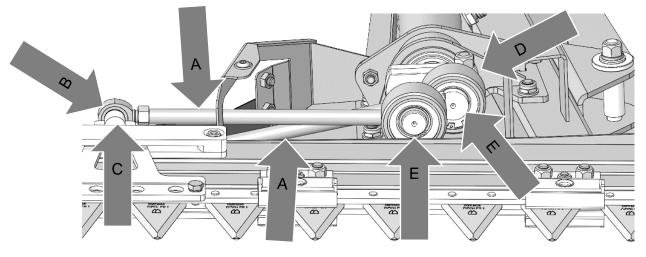
If the crank rod (A) is detached from the knife head (B) to sharpen the knives, pay attention to the following when subsequently mounting the crank rod (A):



Caution:

It is essential that the crankshaft is adjusted so that the dead centre is reached. Only then may the fastening screw (C) of the rubber-metal bushing be tightened. (see Fig. 7)

When tightening, make sure that the rubber-metal bushing (C) does not rotate with it. The same procedure applies if the crankshaft (D) has been dismantled due to a repair to the bearing or similar.



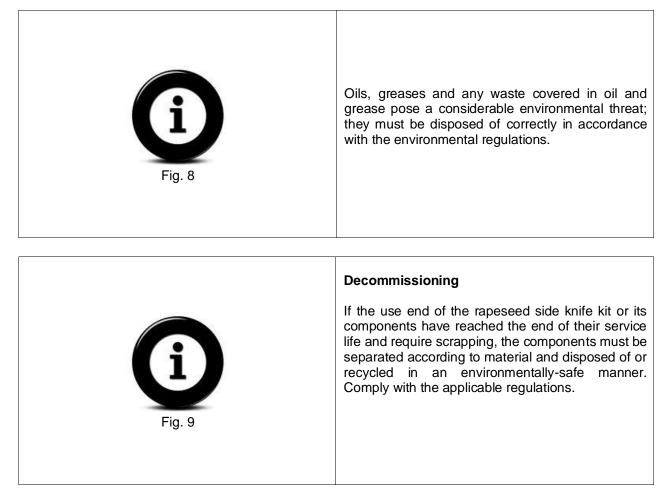


9. POSSIBLE FAULTS AND THEIR ELIMINATION

Fault	Drive	Remedy
Melted knife guides	Hydraulic	 Straighten bent knife Set the knife guides less tight Reduce the rotation speed, which is too high; 550 - 600 rpm is correct
Bent knife	Hydraulic	 The rapeseed side knife is mounted too low on the header, resulting in ground contact



10. DISPOSAL





11. TIGHTENING TORQUE FOR SCREWS

Tightening torque for galvanized screws

Strength	Tightening torque							NC	OMINAL	DIAME	TER - N	ORMAL	_ THRE/	٩D						
class	Nm	M3	M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M39
5.6	Nm	0.56	1.28	2.50	4.3	7.1	10.5	21	36	58	88	121	171	230	295	435	590	800	1030	1340
5.0	ft/lb	0.41	0.94	1.84	3.1	5.2	7.7	15	26	42	64	89	126	169	217	320	435	590	759	988
8.8	Nm	1.28	2.90	5.75	9.9	16.5	24	48	83	132	200	275	390	530	675	995	1350	1830	2360	3050
0.0	ft/lb	0.94	2.14	4.24	7.3	12.1	17.7	35	61	97	147	202	287	390	497	733	995	1349	1740	2249
10.9	Nm	1.80	4.10	8.1	14	23	34	67	117	185	285	390	550	745	960	1400	1900	2580	3310	4290
10.9	ft/lb	1.33	3.02	5.97	10.3	16.9	25	49	86.2	136	210	287	405	549	708	1032	1401	1902	2441	3163
12.9	Nm	2.15	4.95	9.70	16.5	27	40	81	140	220	340	470	660	890	1140	1680	2280	3090	3980	5150
12.9	ft/lb	1.59	3.65	7.15	12.1	19.9	29	59	103	162	250	346	486	656	840	1239	1681	2278	2935	3798

	ength	Tightening torque Nm												
class			M8 x 1	M10 x 1.25	M12 x 1.25	M14 x 1.5	M16 x 1.5	M18 x 1.5	M20 x 1.5	M22 x 1.5	M24 x 2			
8	8.8	Nm	25	49	88	140	210	305	425	570	720			
		ft/lb	18	36	64	103	154	224	313	420	531			
1	0.9	Nm	35	68	125	195	295	425	600	800	1000			
•	0.5	ft/lb	25	50	92	143	217	313	442	590	737			
	2.0	Nm	42	82	150	235	350	510	720	960	1200			
1	2.9	ft/lb	30	60	110	173	258	376	531	708	885			

ZIEGLER

Hersteller: ZIEGLER GmbH

Schrobenhausener Straße 56 D-86554 Pöttmes Tel: +49 (0) 82 53 / 99 97-0 Fax: +49 (0) 82 53 / 99 97-47 Web: www.ziegler-gmbh.com Amtsgericht Augsburg HR-NR. B 17559 Erfüllungsort Pöttmes, Gerichtsstand Aichach Steuer-Nr. 102/168/10401 Geschäftsführer: M. Ziegler, Dipl. BW (FH)

Manufacturer: ZIEGLER GmbH Schrobenhausener Straße 56

86554 Pöttmes Germany

Phone: +49 (0) 82 53 / 99 97-0 Fax: +49 (0) 82 53 / 99 97-47 Web: www.ziegler-gmbh.com Local Court of Augsburg, commercial register no. HRB 17559 Place of performance: Pöttmes, Place of jurisdiction: Aichach Tax no. 102/168/10401 Managing director: M. Ziegler, Dipl. BW (FH)

Производитель: ZIEGLER GmbH

Schrobenhausener Straße 56 D-86554 Pöttmes Tel: +49 (0) 82 53 / 99 97-0 Fax: +49 (0) 82 53 / 99 97-47 Web: www.ziegler-gmbh.com Amtsgericht Augsburg HR-NR. B 17559 Erfüllungsort Pöttmes, Gerichtsstand Aichach Steuer-Nr. 102/168/10401 Geschäftsführer: M. Ziegler, Dipl. BW (FH)